

ABSTRACT

**VIBRATING GYROSCOPE WITH FEEDBACK CONTROL OF THE
DETECTION FREQUENCY WITH RESPECT TO THE EXCITATION
FREQUENCY**

The invention relates to a gyroscope comprising at least one mass (M) capable of vibrating along an x axis at a resonant excitation frequency F_x capable of vibrating along a y axis perpendicular to the x axis, at a resonant detection frequency F_y , under the effect of a Coriolis force generated by a rotation about a z axis perpendicular to the x and y axes. It includes, connected to the mass or masses (M), a feedback control loop for controlling the resonant frequency F_y so that F_y is equal or practically equal to F_x throughout the duration of use of the gyroscope.

Fig. 7